

IDAHO CONTENT STANDARDS  
SCIENCE

Standard 1: Nature of Science

Goals:	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8-9 Physical Science	Grade 8-9 Earth Science	Grade 9-10 Biology
<b>Goal 1.1: Understand Systems, Order, and Organization</b>	No objectives at this grade level.	No objectives at this grade level.	No objectives at this grade level.	3.S.1.1.1 Label the parts of a system. (573.01.a)	4.S.1.1.1 Explain that a system consists of an organized group of related objects that form a whole. (588.01.a)	5.S.1.1.1 Compare and contrast different systems. (603.01.a)	6.S.1.1.1 Analyze different systems. (618.01.a)	7.S.1.1.1 Define small systems as a part of a whole system. (633.01.a)	8-9.PS.1.1.1 Explain the scientific meaning of system, order, and organization. (648.01a)	8-9.ES.1.1.1 Explain the scientific meaning of system, order, and organization. (648.01a)	9-10.B.1.1.1 Explain the scientific meaning of system, order, and organization. (648.01a)
								7.S.1.1.2 Determine how small systems contribute to the function of the whole. (633.01.a)	8-9.PS.1.1.2 Apply the concepts of order and organization to a given system. (648.01a)	8-9.ES.1.1.2 Apply the concepts of order and organization to a given system. (648.01a)	9-10.B.1.1.2 Apply the concepts of order and organization to a given system. (648.01a)
								7.S.1.1.3 Identify the different structural levels of an organism (cells, tissues, organs, and organ systems). (633.01.b)			
<b>Goal 1.2: Understand Concepts and Processes of Evidence, Models, and Explanations</b>	K.S.1.2.1 Make observations and collect data. (528.01.a)	1.S.1.2.1 Make observations, collect data, and use data. (543.01.a)	2.S.1.2.1 Make observations, record and interpret data. (558.01.a)	3.S.1.2.1 Make observations, collect data and evaluate it. (573.02.a)	4.S.1.2.1 Make and record observations then analyze and communicate the collected data. (588.02.a)	5.S.1.2.1 Use observations and data as evidence on which to base scientific explanations and predictions. (603.02a)	6.S.1.2.1 Explain how observations and data are used as evidence on which to base scientific explanations and predictions. (618.02.a)	7.S.1.2.1 Describe how observations and data are evidence on which to base scientific explanations and predictions. (633.02.a)	8-9.PS.1.2.1 Use observations and data as evidence on which to base scientific explanations. (648.02a)	8-9.ES.1.2.1 Use observations and data as evidence on which to base scientific explanations. (648.02a)	9-10.B.1.2.1 Use observations and data as evidence on which to base scientific explanations. (648.02a)
				3.S.1.2.2 Replicate and/or use models. (573.02.b)	4.S.1.2.2 Define observations and inferences. (588.02.b)	5.S.1.2.2 Explain the difference between observation and inference. (603.02.b)	6.S.1.2.2 Use observations to make inferences. (618.02.b)	7.S.1.2.2 Use observations to make defendable inferences. (633.02.b)			
					4.S.1.2.3 Make, describe and/or use models. (588.02.c)	5.S.1.2.3 Use models to explain or demonstrate a concept. (603.02.c)	6.S.1.2.3 Use models to explain or demonstrate a concept. (618.02.c)	7.S.1.2.3 Use models to explain or demonstrate a concept. (633.02.c)	8-9.PS.1.2.2 Develop models to explain concepts or systems. (648.02b)	8-9.ES.1.2.2 Develop models to explain concepts or systems. (648.02b)	9-10.B.1.2.2 Develop models to explain concepts or systems. (648.02b)
									8-9.PS.1.2.3 Develop scientific explanations based on knowledge, logic, and analysis. (648.02c)	8-9.ES.1.2.3 Develop scientific explanations based on knowledge, logic, and analysis. (648.02c)	9-10.B.1.2.3 Develop scientific explanations based on knowledge, logic and analysis. (648.02c)

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Standard 1: Nature of Science (continued)

Goals:	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8-9 Physical Science	Grade 8-9 Earth Science	Grade 9-10 Biology
<b>Goal 1.3: Understand Constancy, Change, and Measurement</b>	K.S.1.3.1 Measure in non-standard units. <a href="#">(528.02.b)</a>	1.S.1.3.1 Measure in both standard and non-standard units. <a href="#">(543.02.b)</a>	2.S.1.3.1 Measure in standard and non-standard units. <a href="#">(558.01.b)</a>	3.S.1.3.1 Measure changes that occur. <a href="#">(573.03.b)</a>	4.S.1.3.1 Describe how changes occur and can be measured. <a href="#">(588.03.b)</a>	5.S.1.3.1 Analyze changes that occur in and among systems. <a href="#">(603.03.b)</a>	6.S.1.3.1 Analyze changes that occur in and among systems. <a href="#">(618.03.b)</a>	7.S.1.3.1 Identify concepts of science that have been stable over time. <a href="#">(633.03.a)</a>	8-9.PS.1.3.1 Measure changes that can occur in and among systems. <a href="#">(648.03b)</a>	8-9.ES.1.3.1 Measure changes that can occur in and among systems. <a href="#">(648.03b)</a>	9-10.B.1.3.1 Measure changes that can occur in and among systems. <a href="#">(648.03b)</a>
								7.S.1.3.2 Recognize changes that occur within systems. <a href="#">(633.03.b)</a>	8-9.PS.1.3.2 Analyze changes that can occur in and among systems. <a href="#">(648.03b)</a>	8-9.ES.1.3.2 Analyze changes that can occur in and among systems. <a href="#">(648.03b)</a>	9-10.B.1.3.2 Analyze changes that can occur in and among systems. <a href="#">(648.03b)</a>
				3.S.1.3.2 Measure in both U.S. Customary and International System of Measurement (metric system) units. <a href="#">(573.03.c)</a>	4.S.1.3.2 Measure in both U.S. Customary and International System of Measurement (metric system) units. <a href="#">(588.03.c)</a>	5.S.1.3.2 Measure in both U.S. Customary and International System of Measurement (metric system) units with an emphasis on the metric system. <a href="#">(603.03.c)</a>	6.S.1.3.2 Measure in both U.S. Customary and International System of Measurement (metric system) units with an emphasis on the metric system. <a href="#">(618.03.c)</a>	7.S.1.3.3 Make metric measurements using appropriate tools. <a href="#">(633.03.c)</a>	8-9.PS.1.3.3 Measure and calculate using the metric system. <a href="#">(648.03c)</a>	8-9.ES.1.3.3 Measure and calculate using the metric system. <a href="#">(648.03c)</a>	9-10.B.1.3.3 Measure and calculate using the metric system. <a href="#">(648.03c)</a>
<b>Goal 1.4: Understand the Theory that Evolution is a Process that Relates to the Gradual Changes in the Universe and of Equilibrium as a Physical State</b>	K.S.1.4.1 Apply the concepts of yesterday, today, and tomorrow. <a href="#">(528.03.a)</a>	1.S.1.4.1 Explain the concepts of past, present, and future. <a href="#">(543.03.a)</a>	2.S.1.4.1 Apply the concepts of past, present, and future. <a href="#">(558.03.a)</a>	No objectives at this grade level.	No objectives at this grade level.	No objectives at this grade level.	No objectives at this grade level.	Reference to objective 7.S.3.2.1	No objectives in Physical Science.	No objectives in Earth Science.	Reference to 7.S.3.2.1
<b>Goal 1.5: Understand Concepts of Form and Function</b>	No objectives at this grade level.	No objectives at this grade level.	2.S.1.5.1 Identify shape and use of objects. <a href="#">(558.04.a)</a>	3.S.1.5.1 Describe the relationship between shape and use. <a href="#">(573.05.a)</a>	4.S.1.5.1 Explain the relationship between shape and use. <a href="#">(588.05.a)</a>	5.S.1.5.1 Explain how the shape or form of an object or system is frequently related to its use or function. <a href="#">(603.05.a)</a>	6.S.1.5.1 Analyze how the shape or form of an object or system is frequently related to its use and/or function. <a href="#">(618.05.a)</a>	No objectives at this grade level.	No objectives in Physical Science.	No objectives in Earth Science.	No objectives in Biology.
<b>Goal 1.6: Understand Scientific Inquiry and Develop Critical Thinking Skills</b>	K.S.1.6.1 Make observations. <a href="#">(529.01.a)</a>	1.S.1.6.1 Make and record observations. <a href="#">(544.01.a)</a>	2.S.1.6.2 Make observations. <a href="#">(559.01.b)</a>								
			2.S.1.6.1 Identify questions to be investigated. <a href="#">(559.01.a)</a>	3.S.1.6.1 Identify questions that can be answered by conducting scientific tests. <a href="#">(574.01.a)</a>	4.S.1.6.1 Write questions that can be answered by conducting scientific tests. <a href="#">(589.01.a)</a>	5.S.1.6.1 Write and analyze questions that can be answered by conducting scientific experiments. <a href="#">(604.01.a)</a>	6.S.1.6.1 Write and analyze questions that can be answered by conducting scientific experiments. <a href="#">(619.02.a)</a>	7.S.1.6.1 Identify controls and variables used in scientific investigations. <a href="#">(634.01.b)</a>	8-9.PS.1.6.1 Identify questions and concepts that guide scientific investigations. <a href="#">(649.01a)</a>	8-9.ES.1.6.1 Identify questions and concepts that guide scientific investigations. <a href="#">(649.01a)</a>	9-10.B.1.6.1 Identify questions and concepts that guide scientific investigations. <a href="#">(649.01a)</a>
				3.S.1.6.2 Conduct scientific tests <a href="#">(574.01.b)</a>	4.S.1.6.2 Conduct scientific tests. <a href="#">(589.01.b)</a>	5.S.1.6.2 Conduct scientific investigations using a control and a variable. <a href="#">(604.01.b)</a>	6.S.1.6.2 Conduct scientific investigations using a control and variables. Repeat same experiment using alternate variables. <a href="#">(619.02.b)</a>	7.S.1.6.2 Use appropriate tools and techniques to gather and display data. <a href="#">(634.01c)</a>	8-9.PS.1.6.2 Utilize the components of scientific problem solving to design, conduct, and communicate results of investigations. <a href="#">(649.01b)</a>	8-9.ES.1.6.2 Utilize the components of scientific problem solving to design, conduct, and communicate results of investigations. <a href="#">(649.01b)</a>	9-10.B.1.6.2 Utilize the components of scientific problem solving to design, conduct, and communicate results of investigations. <a href="#">(649.01b)</a>

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**Standard 1: Nature of Science** (continued)

Goals:	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8-9 Physical Science	Grade 8-9 Earth Science	Grade 9-10 Biology
<b>Goal 1.6: Understand Scientific Inquiry and Develop Critical Thinking Skills</b> <i>(continued from previous page)</i>			2.S.1.6.3 Analyze information and evidence. <a href="#">(559.01.d)</a>					7.S.1.6.3 Evaluate data in order to form conclusions. <a href="#">(634.01.d)</a>			
				3.S.1.6.3 Use appropriate tools and techniques to gather and display data. <a href="#">(574.01.c)</a>	4.S.1.6.3 Use appropriate tools and techniques to gather and display data. <a href="#">(589.01.c)</a>	5.S.1.6.3 Select and use appropriate tools and techniques to gather and display data. <a href="#">(604.01.c)</a>	6.S.1.6.3 Select and use appropriate tools and techniques to gather and display data. <a href="#">(619.02.c)</a>		8-9.PS.1.6.3 Use appropriate technology and mathematics to make investigations. <a href="#">(649.01c)</a>	8-9.ES.1.6.3 Use appropriate technology and mathematics to make investigations. <a href="#">(649.01c)</a>	9-10.B.1.6.3 Use appropriate technology and mathematics to make investigations. <a href="#">(649.01c)</a>
			2.S.1.6.4 Communicate observations. <a href="#">(559.01.f)</a>	3.S.1.6.4 Use data to construct a reasonable explanation. <a href="#">(574.01.d)</a>	4.S.1.6.4 Use data to construct a reasonable explanation. <a href="#">(589.01.d)</a>	5.S.1.6.4 Use evidence to analyze descriptions, explanations, predictions, and models. <a href="#">(604.01.d)</a>	6.S.1.6.4 Use evidence to analyze data in order to develop descriptions, explanations, predictions, and models. <a href="#">(619.2.d)</a>	7.S.1.6.4 Use evidence and critical thinking to accept or reject a hypothesis. <a href="#">(634.01.e)</a>	8-9.PS.1.6.4 Formulate scientific explanations and models using logic and evidence. <a href="#">(649.01d)</a>	8-9.ES.1.6.4 Formulate scientific explanations and models using logic and evidence. <a href="#">(649.01d)</a>	9-10.B.1.6.4 Formulate scientific explanations and models using logic and evidence. <a href="#">(649.01d)</a>
				3.S.1.6.5 Make simple predictions based on data. <a href="#">(574.01.e)</a>	4.S.1.6.5 Make predictions based on data. <a href="#">(589.01.e)</a>	5.S.1.6.5 State a hypothesis based on observations. <a href="#">(604.01.e)</a>	6.S.1.6.5 Test a hypothesis based on observations. <a href="#">(619.02.e)</a>				
				3.S.1.6.6 Identify logical alternative explanations. <a href="#">(574.01.f)</a>	4.S.1.6.6 Analyze alternative explanations. <a href="#">(589.01.f)</a>	5.S.1.6.6 Compare alternative explanations and predictions. <a href="#">(604.01.f)</a>		7.S.1.6.5 Evaluate alternative explanations or predictions. <a href="#">(634.01.f)</a>	8-9.PS.1.6.5 Analyze alternative explanations and models. <a href="#">(649.01e)</a>	8-9.ES.1.6.5 Analyze alternative explanations and models. <a href="#">(649.01e)</a>	9-10.B.1.6.5 Analyze alternative explanations and models. <a href="#">(649.01e)</a>
				3.S.1.6.7 Communicate the results of tests to others. <a href="#">(574.01.g)</a>	4.S.1.6.7 Communicate the results of tests to others in multiple formats. <a href="#">(589.01.g)</a>	5.S.1.6.7 Communicate scientific procedures and explanations. <a href="#">(604.01.g)</a>	6.S.1.6.6 Communicate scientific procedures and explanations. <a href="#">(619.02.g)</a>	7.S.1.6.6 Communicate and defend scientific procedures and explanations. <a href="#">(634.01.g)</a>	8-9.PS.1.6.6 Communicate and defend a scientific argument. <a href="#">(649.01f)</a>	8-9.ES.1.6.6 Communicate and defend a scientific argument. <a href="#">(649.01f)</a>	9-10.B.1.6.6 Communicate and defend a scientific argument. <a href="#">(649.01f)</a>
									8-9.PS.1.6.7 Explain the differences among observations, hypotheses, and theories. <a href="#">(649.01g)</a>	8-9.ES.1.6.7 Explain the differences among observations, hypotheses, and theories. <a href="#">(649.01g)</a>	9-10.B.1.6.7 Explain the differences among observations, hypotheses, and theories. <a href="#">(649.01g)</a>
<b>Goal 1.7: Understand That Interpersonal Relationships Are Important in Scientific Endeavors</b>	K.S.1.7.1 Use cooperation and interaction skills. <a href="#">(538.01.a)</a>	1.S.1.7.1 Demonstrate cooperation and interaction skills. <a href="#">(553.01.a)</a>	2.S.1.7.1 Practice cooperation and interaction skills. <a href="#">(568.01.a)</a>	No objectives at this grade level.	No objectives at this grade level.	No objectives at this grade level.	No objectives at this grade level.	No objectives at this grade level.	No objectives in Physical Science.	No objectives in Earth Science.	No objectives in Biology.
<b>Goal 1.8: Understand Technical Communication</b>	K.S.1.8.1 Follow instructions. <a href="#">(538.02.a)</a>	1.S.1.8.1 Follow multi-step instructions. <a href="#">(553.02.a)</a>	2.S.1.8.1 Follow multi-step instructions. <a href="#">(568.02.a)</a>	3.S.1.8.1 Read and give multi-step instructions. <a href="#">(583.02.a)</a>	4.S.1.8.1 Analyze and follow multi-step instructions. <a href="#">(598.02.a)</a>	5.S.1.8.1 Read and follow technical instructions. <a href="#">(613.02.a)</a>	6.S.1.8.1 Read, give, and execute technical instructions. <a href="#">(628.01a)</a>	7.S.1.8.1 Read and evaluate technical instructions. <a href="#">(643.02.a)</a>	8-9.PS.1.8.1 Analyze technical writing, graphs, charts, and diagrams. <a href="#">(658.02a)</a>	8-9.ES.1.8.1 Analyze technical writing, graphs, charts, and diagrams. <a href="#">(658.02a)</a>	9-10.B.1.8.1 Analyze technical writing, graphs, charts, and diagrams. <a href="#">(658.02a)</a>

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Standard 2: Physical Science

Goals:	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8-9 Physical Science	Grade 8-9 Earth Science	Grade 9-10 Biology
Goal 2.1: Understand the Structure and Function of Matter and Molecules and Their Interactions	K.S.2.1.1 Use senses to describe matter. (530.01.a)	1.S.2.1.1 Describe properties of objects. (545.01.a)	2.S.2.1.1 List properties of an object. (560.01.a)	3.S.2.1.2 Identify the physical properties of solids, liquids, and gases. (575.01.b)		5.S.2.1.1 Describe the differences among elements, compounds, and mixtures. (605.01.a)	6.S.2.1.1 Compare and contrast the differences among elements, compounds and mixtures. (620.01.a)	No objectives at this grade level.	No objectives in Physical Science.	No objectives in Earth Science.	No objectives in Biology.
					4.S.2.1.2 Describe the physical properties of solids, liquids, and gases. (590.01.b)	5.S.2.1.2 Compare the physical differences among solids, liquids, and gases. (605.01.c)	6.S.2.1.2 Define the properties of matter. (620.01.b)				
				3.S.2.1.1 Use instruments to measure properties. (575.01.a)	4.S.2.1.1 Use instruments to measure properties (590.01.a)						
				3.S.2.1.3 Explain that heating and cooling can cause changes of state in common materials. (575.01.c)	4.S.2.1.3 Explain the changes caused by heating and cooling materials. (590.01.c)		6.S.2.1.4 Describe the effect of temperature on density. (620.01.c)				
							6.S.2.1.3 Compare densities of equal volumes of a solid, a liquid, or a gas. (619.01.c)				
						5.S.2.1.3 Explain the nature of physical change and how it relates to physical properties. (605.01.d)	6.S.2.1.5 Explain the nature of physical change and how it relates to physical properties (the distance between molecules as water changes from ice to liquid water, and to water vapor). (620.01.d)				
Goal 2.2: Understand Concepts of Motion and Forces	No objectives at this grade level.	1.S.2.2.1 Describe the position and motion of objects. (ex. revolve, rotate, at rest, float, and fall) (545.02.a)	2.S.2.2.1 Explain how force affects the position and motion of objects. (560.01.a)	No objectives at this grade level.	No objectives at this grade level.	No objectives at this grade level.	6.S.2.2.1 Describe the effects of different forces (gravity and friction) on the movement, speed, and direction of an object. (620.03.d)	No objectives at this grade level.	8-9.PS.2.2.1 Explain motion using Newton’s Laws of Motion. (650.04b)	No objectives in Earth Science.	No objectives in Biology.
Goal 2.3: Understand the Total Energy in the Universe is Constant	No objectives at this grade level.	No objectives at this grade level.	No objectives at this grade level.	3.S.2.3.1 Identify potential and kinetic energy. (590.03.a)	No objectives at this grade level.	No objectives at this grade level.	No objectives at this grade level.	No objectives at this grade level.	8-9.PS.2.3.1 Explain that energy can be transformed but cannot be created nor destroyed. (650.05a)	No objectives in Earth Science.	No objectives in Biology.
									8-9.PS.2.3.2 Classify energy as potential and/or kinetic and as energy contained in a field. (650.05b)		

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Standard 2: Physical Science (continued)

Goals:	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8-9 Physical Science	Grade 8-9 Earth Science	Grade 9-10 Biology
Goal 2.4: Understand the Structure of Atoms	No objectives at this grade level.	No objectives at this grade level.	No objectives at this grade level.	No objectives at this grade level.	No objectives at this grade level.	No objectives at this grade level.	No objectives at this grade level.	No objectives at this grade level.	8-9.PS.2.4.1 Describe the properties, function, and location of protons, neutrons, and electrons. (650.01a)	No objectives in Earth Science.	No objectives in Biology.
									8-9.PS.2.4.2 Explain the processes of fission and fusion. (650.01b)		
									8-9.PS.2.4.3 Describe the characteristics of isotopes. (650.01c)		
									8-9.PS.2.4.4 State the basic electrical properties of matter. (650.01d)		
									8-9.PS.2.4.5 Describe the relationships between magnetism and electricity.		
Goal 2.5: Understand Chemical Reactions	No objectives at this grade level.	No objectives at this grade level.	No objectives at this grade level.	No objectives at this grade level.	No objectives at this grade level.	No objectives at this grade level.	No objectives at this grade level.	No objectives at this grade level.	8-9.PS.2.5.1 Explain how chemical reactions may release or consume energy while the quantity of matter remains constant. (650.03a)	No objectives in Earth Science.	No objectives in Biology.

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Standard 3: Biology

Goals:	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8-9 Physical Science	Grade 8-9 Earth Science	Grade 9-10 Biology
<b>Goal 3.1: Understand the Theory of Biological Evolution</b>	K.S.3.1.1 Observe and describe the characteristics of plants and animals. (532.01.a)	1.S.3.1.1 Describe the life cycle of a plant (seed, growth, reproduction, death). (547.01.a)	No objectives at this grade level.	3.S.3.1.1 Describe the adaptations of plants and animals to their environment. (577.01.a)	4.S.3.1.1 Analyze and communicate the adaptations of plants and animals to their environment. (592.01.a)	No objectives at this grade level.	No objectives at this grade level.	7.S.3.1.1 Describe how natural selection explains species change over time. (637.01.a)	No objectives in Physical Science.	No objectives in Earth Science.	9-10.B.3.1.1 Use the theory of evolution to explain how species change over time. (652.01a)
		1.S.3.1.2 Describe the life cycle of an animal (birth, development, reproduction, death). (547.01.a)			4.S.3.1.2 Describe the difference between vertebrate and invertebrate animals. (592.01.c)						9-10.B.3.1.2 Explain how evolution is the consequence of interactions among the potential of a species to increase its numbers, genetic variability, a finite supply of resources, and the selection by the environment of those offspring better able to survive and reproduce. (652.01a)
					4.S.3.1.3 Classify the five groups of vertebrates (mammal, reptiles, amphibians, birds, and fish) based on characteristics. (592.01.c)						
<b>Goal 3.2: Understand the Relationship between Matter and Energy in Living Systems</b>	K.S.3.2.1 Describe the difference between living and non-living things. (533.01.a)	1.S.3.2.1 State that living things need food to survive. (548.01.a)	2.S.3.2.1 Identify four basic needs of all living things (food, shelter, water, space). (563.01.a)	3.S.3.2.1 Describe the energy needed for living systems to survive. (578.01.a)	No objectives at this grade level.	5.S.3.2.1 Communicate how plants convert energy from the sun through photosynthesis. (608.01.a)	No objectives at this grade level.	7.S.3.2.1 Describe how energy stored in food is primarily derived from the sun through photosynthesis. (638.01.a)	No objectives in Physical Science.	No objectives in Earth Science.	9-10.B.3.2.1 Explain how matter tends toward more disorganized states (entropy). (653.01a)
			2.S.3.2.2 Discuss how animals are suited to live in different habitats. (547.01.b)	3.S.3.2.2 Compare and contrast the energy requirements of plants and animals. (593.01.a)				7.S.3.2.2 Describe how the availability of resources (matter and energy) limits the distribution and abundance of organisms. (638.01.b)			9-10.B.3.2.2 Explain how organisms use the continuous input of energy and matter to maintain their chemical and physical organization. (653.01b)
				3.S.3.2.3 Label a food chain that shows how organisms cooperate and compete in an ecosystem. (578.01.b)				7.S.3.2.3 Illustrate how atoms and molecules cycle among the living and nonliving components of the biosphere. (638.01.c)			9-10.B.3.2.3 Show how the energy for life is primarily derived from the sun through photosynthesis. (653.01c)

				3.S.3.2.4 Diagram the food web and explain how organisms both cooperate and compete in ecosystems. (593.01.b)				7.S.3.2.4 Identify how energy flows through ecosystems in one direction, from photosynthetic organisms to herbivores, carnivore, and decomposers. (638.01.d)			9-10.B.3.2.4 Describe cellular respiration and the synthesis of macromolecules. (653.01d)
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Standard 3: Biology (continued)

Goals:	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8-9 Physical Science	Grade 8-9 Earth Science	Grade 9-10 Biology
<b>Goal 3.2: Understand the Relationship between Matter and Energy in Living Systems</b> <i>(continued from previous page)</i>											9-10.B.3.2.5 Show how matter cycles and energy flows through the different levels of organization of living systems (cells, organs, organisms, communities) and their environment. <a href="#">(653.01h)</a>
<b>Goal 3.3: Understand the Cell is the Basis of Form and Function for All Living Things</b>	No objectives at this grade level.	No objectives at this grade level.	No objectives at this grade level.	No objectives at this grade level.	No objectives at this grade level.	5.S.3.3.1 Compare and contrast the structural differences between plant and animal cells. <a href="#">(606.01.b)</a>	6.S.3.3.1 Identify the different structural levels of which an organism is comprised (cells, tissues, organs, organ systems, and organisms). <a href="#">(621.01.a)</a>	7.S.3.3.1 Explain the relationships among specialized cells, tissues, organs, organ systems, and organisms. <a href="#">(636.01.a)</a>	No objectives in Physical Science.	No objectives in Earth Science.	9-10.B.3.3.1 Identify the particular structures that underlie the cellular functions. <a href="#">(651.01a)</a>
							6.S.3.3.2 Analyze the structural differences between plant and animal cells. <a href="#">(621.01.b)</a>	7.S.3.3.2 Identify the parts of specialized plant and animal cells. <a href="#">(636.01.b)</a>			9-10.B.3.3.2 Explain cell functions involving chemical reactions. <a href="#">(651.01b)</a>
								7.S.3.3.3 Identify the functions of cell structures. <a href="#">(636.01.b)</a>			9-10.B.3.3.3 Explain how cells use DNA to store and use information for cell functions. <a href="#">(651.01c)</a>
								7.S.3.3.4 Describe cell functions that involve chemical reactions. <a href="#">(630.01.c)</a>			9-10.B.3.3.4 Explain how selective expression of genes can produce specialized cells from a single cell. <a href="#">(651.01e)</a>
						5.S.3.3.2 Explain the concept that traits are passed from parents to offspring. <a href="#">(606.01.c)</a>	6.S.3.3.3 Describe how traits are passed from parents to offspring. <a href="#">(621.01.c)</a>	7.S.3.3.5 Describe how dominant and recessive traits are inherited. <a href="#">(636.01.e)</a>			



IDAHO CONTENT STANDARDS  
SCIENCE

Standard 4: Earth and Space Systems

Goals:	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8-9 Physical Science	Grade 8-9 Earth Science	Grade 9-10 Biology
Goal 4.1: Understand Scientific Theories of Origin and Subsequent Changes in the Universe and Earth Systems	K.S.4.1.1 Name the four seasons. (534.01.a)	1.S.4.1.1 Identify the four seasons and their characteristics for a local region. (549.01.a)		3.S.4.1.1 Explain the reasons for length of a day, the seasons, and the year on Earth. (594.01.a)				No objectives at this grade level.	No objectives in Physical Science.		No objectives in Biology.
	K.S.4.1.2 Place the four seasons in order. (534.01.a)						6.S.4.1.2 Explain the water cycle and its relationship to weather and climate. (624.01.b)				
			2.S.4.1.1 Describe the characteristics of different weather conditions. (564.01.b)				6.S.4.1.3 Identify cumulus, cirrus, and stratus clouds and how they relate to weather changes. (624.01.c)				
										8-9.ES.4.1.2 Identify methods used to estimate geologic time. (654.01b)	
						5.S.4.1.1 Describe the interactions among the solid earth, oceans and atmosphere (erosion, climate, tectonics and continental drift). (609.01.a)	6.S.4.1.1 Explain the interactions among the solid earth, oceans, atmosphere, and organisms. (624.01.a)			8-9.ES.4.1.3 Show how interactions among the solid earth, oceans, atmosphere, and organisms have changed the earth system over time. (654.01c)	
					4.S.4.1.1 Compare and contrast the basic components of our solar system (planets, sun, moon, asteroids, comets, meteors). (594.01.b)					8-9.ES.4.1.1 Explain the current scientific theory that suggests that the solar system formed from a nebular cloud of dust and gas. (654.01a)	
					4.S.4.1.2 Explain the effect of gravity on orbits and objects. (594.01.c)						
					4.S.4.1.3 Explain the effect of moon’s gravity on Earth’s tides. (594.01.c)						
Goal 4.2: Understand Geo-chemical Cycles and Energy in the Earth System	No objectives at this grade level.	No objectives at this grade level.	No objectives at this grade level.	No objectives at this grade level.	No objectives at this grade level.	5.S.4.2.1 Explain the rock cycle and identify the three classifications of rocks. (609.02.a)	No objectives at this grade level.	No objectives at this grade level.	No objectives in Physical Science.	8-9.ES.4.2.1 Explain the internal and external energy sources of the earth (654.02a)	No objectives in Biology.

IDAHO CONTENT STANDARDS  
SCIENCE

Standard 5: Personal and Social Perspectives; Technology

Goals:	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8-9 Physical Science	Grade 8-9 Earth Science	Grade 9-10 Biology
<b>Goal 5.1: Understand Common Environmental Quality Issues, Both Natural and Human Induced</b>	K.S.5.1.1 Describe characteristics of a man-made environment (home, school...). <a href="#">(536.01.a)</a>	1.S.5.1.1 Identify the characteristics of local natural environments. (playground, backyard). <a href="#">(551.01.a)</a>	2.S.5.1.1 Compare and contrast man-made and natural environments. <a href="#">(566.01.a)</a>	3.S.5.1.1 Identify local environmental issues. <a href="#">(581.01.a)</a>	No objectives at this grade level.	5.S.5.1.1 Identify issues for environmental studies. <a href="#">(611.01.a)</a>	6.S.5.1.1 Identify issues for environmental studies. <a href="#">(626.01.a)</a>	No objectives at this grade level.	No objectives in Physical Science.	8-9.ES.5.1.1 Analyze environmental issues such as water and air quality, hazardous waste, and depletion of natural resources. <a href="#">(656.01a)</a>	9-10.B.5.1.1 Analyze environmental issues such as water and air quality, hazardous waste, forest health, and agricultural production. <a href="#">(656.01a)</a>
<b>Goal 5.2: Understand the Relationship between Science and Technology</b>	No objectives at this grade level.	No objectives at this grade level.	2.S.5.2.1 Identify tools people have invented for everyday life and for scientific investigations. <a href="#">(565.01.b)</a>	3.S.5.2.1 Describe how technology helps develop tools. <a href="#">(580.01.a)</a>	4.S.5.2.1 Identify tools used for space exploration and for scientific investigations. <a href="#">(595.01.b)</a>	5.S.5.2.1 Describe how science and technology are part of a student’s life. <a href="#">(610.01.a)</a>	6.S.5.2.1 Describe how science and technology are part of our society. <a href="#">(625.01.a)</a>	7.S.5.2.1 Explain how science and technology are interrelated. <a href="#">(640.01.a)</a>	8-9.PS.5.2.1 Explain how science advances technology. <a href="#">(655.01a)</a>	8-9.ES.5.2.1 Explain how science advances technology. <a href="#">(655.01a)</a>	9-10.B.5.2.1 Explain how science advances technology. <a href="#">(655.01a)</a>
				3.S.5.2.2 Describe the development of tools over time. <a href="#">(580.01.b)</a>		5.S.5.2.2 List examples of science and technology. <a href="#">(610.01.b)</a>	6.S.5.2.2 Describe how science and technology are interrelated. <a href="#">(625.01.b)</a>	7.S.5.2.2 Explain how science advances technology. <a href="#">(640.01.b)</a>	8-9.PS.5.2.2 Explain how technology advances science. <a href="#">(655.01a)</a>	8-9.ES.5.2.2 Explain how technology advances science. <a href="#">(655.01a)</a>	9-10.B.5.2.2 Explain how technology advances science. <a href="#">(655.01a)</a>
									8-9.PS.5.2.3 Explain how science and technology are pursued for different purposes. <a href="#">(656.01b)</a>	8-9.ES.5.2.3 Explain how science and technology are pursued for different purposes. <a href="#">(655.01b)</a>	9-10.B.5.2.3 Explain how science and technology are pursued for different purposes. <a href="#">(656.01b)</a>
<b>Goal 5.3: Understand the Importance of Natural Resources and the Need to Manage and Conserve Them</b>	No objectives at this grade level.	No objectives at this grade level.	No objectives at this grade level.	3.S.5.3.1 Explain the concept of recycling. <a href="#">(581.03.a)</a>	No objectives at this grade level.	5.S.5.3.1 Identify the differences between renewable and nonrenewable resources. <a href="#">(611.03.a)</a>	6.S.5.3.1 Explain the difference between renewable and nonrenewable resources. <a href="#">(626.03.a)</a>		No objectives in Physical Science.	8-9.ES.5.3.1 Describe the difference between renewable and nonrenewable resources. <a href="#">(656.03a)</a>	9-10.B.5.3.1 Describe the difference between renewable and nonrenewable resources. <a href="#">(656.03a)</a>
								7.S.5.3.1 Identify alternative sources of energy. <a href="#">(641.03.a)</a>			